

SHIKHAR YADAV

Kanpur, Uttar Pradesh

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Objective

Backend Developer specializing in real-time systems, scalable architectures, and high-performance backend solutions, with a focus on low-latency, efficient data handling, and robust system design.

Education

Pranveer Singh Institute of Technology <i>B.Tech in Artificial Intelligence and Data Science</i>	2023 – 2027 <i>Kanpur, Uttar Pradesh</i>
K.R. Education Centre <i>Class 12th</i>	2023 <i>Kanpur, Uttar Pradesh</i>
K.R. Education Centre <i>Class 10th</i>	2021 <i>Kanpur, Uttar Pradesh</i>

Projects & Technical Experience

In-Chat (AI-powered, end-to-end encrypted messaging) – Implemented end-to-end encryption using public-private key exchange and shared secret generation. – Integrating AI-driven features for contextual message suggestions and real-time assistance.	Ongoing
Mongoose-lite-js (Open-source ODM — Node.js, YAML, File System) – Built a minimal Mongoose re-implementation to expose ORM internals for learning and experimentation. – Designed a YAML-based data storage engine eliminating MongoDB dependency for lightweight local database operations.	2026
DiscordBot (Automation Bot — Node.js) – Developed an event-driven Discord bot with API integrations and custom command handling.	2025
Bloom Filter Implementation – Implemented a memory-efficient Bloom Filter with optimized multi-hash functions for fast membership checks.	2024
LRU Cache (From Scratch) – Designed an LRU cache using hashmap + doubly linked list ensuring O(1) operations.	2024

Technical Skills

Languages: JavaScript, Python, C

Frontend Technologies: React.js

Backend Technologies: Node.js, Express.js, REST APIs, Socket.IO

Databases: MongoDB, SQL

Core CS: Data Structures & Algorithms, Object-Oriented Programming (OOP), DBMS, Operating Systems

Tools: Git, GitHub, Postman, Linux (CLI), VS Code

Certifications & Achievements

- Full Stack Development Certification – Simplilearn
- HTML5, CSS3, JavaScript – Infosys Springboard
- Oracle Cloud Infrastructure AI Foundations Associate
- 175+ Day LeetCode Streak with 8 Badges
- 4-star Problem Solving – HackerRank